

Applicant : Frank Michael Kraft
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REMARKS

In the Office Action dated June 13, 2006, the Examiner rejected all pending claims 1-20. Claims 1-20 remain pending. Applicant respectfully requests reconsideration in view of the following remarks.

Claim Rejections – 35 USC 102

The Office Action rejected claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,551,046 to Mohan et al. (**Mohan**). Of the rejected claims, claims 1, 9 and 13 are independent. Applicant respectfully submits that each of the rejected independent claims defines subject matter that is patentable over **Mohan**, as do the rejected dependent claims.

Claim 1 and its Dependent Claims

Applicant's claim 1, for example, is directed to a method of updating a local cache of an application system in a multiple-system environment having a central system that maintains central data objects that are shared by the multiple systems. The method includes receiving a message from a first application system. The message identifies a data object having a version identifier assigned by the central system. The method also includes comparing the version identifier of the data object in the message to a version identifier of a corresponding data object stored in the local cache of a second application system. The method further includes requesting, from the central system, a more recent copy of the data object in the central system if the version identifier of the data object stored in the local cache of the second application system indicates that a more recent version of the data object exists. The method also includes updating the local cache of the second application system with the more recent copy of the data object in the central system.

Mohan discloses a combination of multiple concurrently executing database management systems which share data storage resources. (Abstract; Figure 2.) Generally, **Mohan** is directed to lock management in such a system, which is a technique by which certain local systems are "locked" from accessing a particular data record or object that is stored in a shared data resource during a time, for example, when another local system is updating the

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particular data record or object. (See, e.g., col. 5, lines 29-39.) In particular, the lock management system in **Mohan** is directed to an environment that uses a no-force-at-commit policy. Under a no-force-at-commit policy, when one local system updates a data resource in its local cache, the local system does not update the shared data storage device. Instead, it notifies the other local systems of the update, so that the other local systems know to access the data record or object not from the shared data storage, but rather from the local cache of the local system that has the more recent version of the particular data record or object. (See, e.g., col. 7, lines 13-21.) **Mohan** discloses a system to manage a lock conflict between two systems in this environment by granting a lock to one system to update a shared page, writing the updated page to the shared data storage device, then giving a lock to the second requesting system, and sending the updated page to the second system. (See col. 9, line 14 to col. 10, line 2.)

Mohan is very different from the subject matter described and claimed in Applicant's application, and in particular, does not anticipate or render obvious the subject matter set forth in Applicant's independent claim 1 for several reasons. For example, **Mohan** does not disclose or suggest a method that involves the use of a version identifier for a data record or object assigned by a central system that maintains central data objects shared by multiple application systems. To the contrary, **Mohan** describe a version control technique that does not require the use of a version identifier at all, and no such identifier is even mentioned. As such, **Mohan** does not disclose or suggest, as required by claim 1, a method that includes the receipt of a message from a first application system, where the message identifies a data object having a version identifier assigned by the central system. This is a first step upon which many of the remaining steps of the claim are based, and because this first step is missing, many of the remaining steps are missing as well. For example, **Mohan** does not disclose or suggest a comparing of the version identifier, as required by claim 1, and does not disclose the request that is made based on the outcome of the comparison.

The contentions set forth in the Office Action with respect to claim 1 miss the mark. First, the Office Action cites column 6, line 64 through column 7, line 21 of **Mohan** as disclosing the claimed step of claim 1 of "receiving a message from a first application system, the message

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identifying a data object having a version identifier assigned by the central system." Applicant disagrees. While the passage indicates that the global lock manager receives a message from the local lock managers, the passage does not disclose the contents of the message, and thus does not disclose a message identifying a data object having a version identifier assigned by the central system.

Next, the Office Action cites column 4, lines 43-58 and column 9, lines 34-67 of Mohan as disclosing the claim 1 step of "comparing the version identifier of the data object in the message to a version identifier of a corresponding data object stored in the local cache of a second application system." Again, Applicant disagrees. The first passage (in column 4) states that after obtaining a transaction lock, the computer's database management system checks its local cache to see if the requested data resource resides there. If the requested data is not in the local cache, the cache manager will initiate an I/O process to obtain the data from the shared database or the cache of another computer system. The second passage (in column 9) cited by the Examiner discusses how a prior art system might employ a lock-coherency scheme under a no-force-at-commit policy. Under this prior art scheme, when a first system (S1) has a lock on a page and a request for a lock is sent by a second system (S2), the lock conflict would be resolved by writing the page to the data storage, changing the status of the locks, and sending the page to S2.

Nothing in either passage from Mohan discloses the comparison of a version identifier of a data object in the message to the version identifier of a corresponding data object stored in the local cache of a second application. Indeed, in column 4 of Mohan, there could be no comparison of version identifiers because the requesting system does not have a copy of the data resource. Similarly, in column 9, although the second system (S2) receives an updated page, there is no disclosure of any comparison of version identifiers by either system.

The Office Action cites to the same passages from columns 4 and 9 of Mohan as disclosing the claim 1 step of "requesting, from the central system, a more recent copy of the data object in the central system if the version identifier of the data object stored in the local cache of the second application system indicates that a more recent version of the data object

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exists." Applicant disagrees again. The passage in column 4 does not disclose this step. The system requests the data resource because it does not exist in the local cache, not because the version identifier of the data resource indicates a more recent version exists. Likewise, the passage in column 9 does not disclose this step because the copy of the page is not requested by the system (it is sent to resolve a lock conflict) and, in any event, the page is not sent because the version identifiers in the system's local cache indicate a more recent version exists.

In summary, **Mohan** describes technology that is very different from what is described and claimed in Applicant's application. Many of the limitations of claim 1 are missing from **Mohan** as described above. In addition, because of the significant differences between claim 1 and **Mohan**, it cannot be said that **Mohan** renders claim 1 obvious, either alone or in combination with any other reference of record.

Accordingly, Applicant asks that the Patent Office remove its rejection of independent claim 1 based on **Mohan**, as well as its rejection of dependent claims 2-8.

Claim 9 and its Dependent Claims

Applicant's independent claim 9 is directed to a method of updating a local cache of an application system in a multiple-system environment having a central system that maintains central data objects that are shared by the multiple systems. The method includes the steps of executing an application in a first application system and processing a document using a data object having a version identifier assigned by the central system. The method also includes sending a message to a second application system containing a data object identifier to identify the data object used to process the document and the version identifier that corresponds to the data object.

In paragraph 10 of the Office Action, the Examiner indicates that the same portions of **Mohan** relied on for claims 1 and 13 also disclose the method of independent claim 9. None of these passages disclose, for example, the claim 9 step of executing an application and processing a document using a data object having a version identifier assigned by the central system, as well as other steps dependent upon this step. Likewise, for the reasons stated above, **Mohan** does not

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disclose sending a message containing a data object identifier and a version identifier that corresponds to that data object.

Accordingly, Applicant asks that the Patent Office remove its rejection of independent claim 9 based on **Mohan**, as well as its rejection of dependent claims 10-12.

Claim 13 and its Dependent Claims

Applicant's independent claim 13 recites a computer readable medium that causes a processor of an application system in a multiple-system environment to perform steps similar to those recited in claim 1. For the reasons described above in connection with claim 1, claim 13 describes subject matter that is patentable over **Mohan**.

Accordingly, Applicant asks that the Patent Office remove its rejection of independent claim 13 based on **Mohan**, as well as its rejection of dependent claims 14-20.

Conclusion

Applicant submits that pending claims 1-20 are in condition for allowance and respectfully requests that the Examiner issue a notice of allowance.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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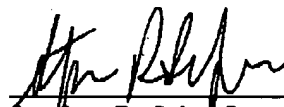
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Respectfully submitted,

Date:

Sep. 13, 2006



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